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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,603	11/09/2001	Stefan Miersch		9226

7590 06/17/2004

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EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,603

Applicant(s)

MIERSCH ET AL.

Examiner

Tom P Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/05/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 7-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bremmer (4,579,654) in view of Chow (4,157,958). Regarding claim 7, Bremmer discloses a system for generating methane gas (Fig. 1) comprises: a flexible bag (Col. 3, lines 24-27) having a horizontally extended tubular length (See Fig. 1), a majority of said length (space below wall 5) filled with biomass material (Col. 5, lines 9-10) in a composition known to produce methane gas (Col. 5, lines 42-44) and as desired adding an inoculant material (Col. 5 lines 15-16) that induces a reaction with the biomass material to induce methane gas emission (Col. 5, lines 42-44) from the biomass material; a remaining tubular length the unfilled (methane fermentation space 18) with the material and filled with said gas emitted (methane) biomass material, pipe (hose 43) inserted through the wall (1) releasing methane. Bremmer discloses the methane gas is withdrawn by a plurality of hoses 43 or ducts but fails to disclose a gas collection site. Chow teaches the reaction vessel 10 is equipped with one or more vent lines 13 for removal of the gas and the gas is stored in a gas storage tank 15 (Col. 2, lines 21-28). Thus, it would have been obvious in view of Chow to one having ordinary skill in the art

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to modify the apparatus of Bremmer with a gas storage tank as taught by Chow in order to collect and store emitted gas from the anaerobic digester. Regarding claim 8, Bremmer shows a conduit (43) positioned inside the bag (1) at filled tubular length (space below 5) and extended unfilled tubular length (Fig. 5, space 18) transmitting gas to the unfilled tubular length. Regarding claim 11, Bremmer discloses an anaerobic apparatus with flexible wall 1 but fails to disclose a plurality of bags (digesters) are placed in adjacent relationship or connected in series and a gas line connected between the bags and the collection site. It would have been obvious in view of Bremmer to one having ordinary skill in the art to duplicate additional anaerobic apparatus to process additional batch of biomass material. Note, the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. See *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Regarding claim 12, Bremmer discloses the dominant portion of the biomass material is animal waste (Col. 1, lines 11-12).

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over applied references (Bremmer '654 in view of Chow '958) as applied to claim 8 above, and further in view of Courtland (3,981,803). Regarding claim 9, Bremmer discloses a heating insulation layer maybe positioned between the bottom wall 1 and the concrete floor (Col. 4, lines 57-60) but fails to disclose a heating pad connected to a water source for flowing hot water through the pad and heating the material of the bag or wall 1. Courtland '803 teaches a heat exchanger 6, connected to a hot water source, is placed in the circular central pad 3 (Col. 5, lines 1-17) and such heat exchanger provides a

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heating means for controlling the temperature of the fermentation process. (Col. 8, lines 15-23). Thus, it would have been obvious in view of Courtland to one having ordinary skill in the art to modify the apparatus of the applied references with a heating pad as taught by Courtland in order to heat the organic waste material to generate methane gas.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over applied references as applied to claim 9 above, and further in view of Pogoda (4,267,147). The applied references fails to disclose a robe is placed over the bag, water lines are positioned between the bag and robe and hot water is circulated through the lines for heating the material in the bag. Bremmer '654 discloses an external and/or internal flexible insulation layer maybe provided around the wall 1 to maintain the temperature of the anaerobic apparatus (Col. 3, lines 29-34) but fails to disclose a robe with water lines is placed over the bag. Pogoda teaches the use of a hot bottle type comprises of elastic body envelope 51 and the heating device 50 has a water inlet port 50 and an outlet port 56 and such heating device conforms to the surface area of the structural component (Fig. 1) and facilitates even distribution of heat to the structural component. Thus, it would have been obvious in view of Pogoda to one having ordinary skill in the art to substitute the internal and/or external heat insulation of Bremmer with a heating device as taught by Pogoda in order to facilitate even heat distribution between the heating device and the wall 1 of Bremmer.

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Conclusion

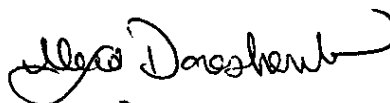
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
May 20, 2004

TD



Alex Doroshevsk
Patent Examiner
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